

## **Abstract**

This thesis is aimed on the influence of lubricant, calcium stearate mixed with microcrystalline cellulose, on compression process and kinetics of crushing tablets.

The theoretical part of the thesis deals with the distribution and characterization of excipients and active substances, and especially their influence on the elastic recoil, the compression process and parameters of the compression were described furthermore.

The experimental part of this work evaluates the compression process and the kinetics of crushing of pressed tablets made of microcrystalline cellulose and calcium stearate. The influence of the concentration of calcium stearate and the compression pressure on each phase of compression process and the kinetics of crushing of pressed tablets was mainly observed.

The result of this work was the determination of the dependence of compression pressure and the concentration of calcium stearate on the phases of compression process, energetic parameters and tensile strength. In some cases a statistically significant difference was found out.